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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,654	10/02/2000	Michael James Knee	87805-9010	9007
23409	7590	06/23/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			VO, TUNG T	
			ART UNIT	PAPER NUMBER

2613

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/600,654

Applicant(s)

KNEE, MICHAEL JAMES

Examiner

Tung Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 20-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/2005 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

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international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3, 4-5, 7-11, and 13-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohsawa (US 5,790,195).

Re claim 1, Ohsawa discloses a video signal comprising the steps of:

in compression coding step (22 and 35 of fig. 1), analyzing an input video signal at a picture rate and at a macroblock rate (11 and 12 of fig. 1), and

taking compression coding decisions (13 of fig. 1) including picture rate coding decisions and macroblock rate coding decisions;

forming a presentation of the coding decisions (the output of the decision circuit 13, col. 6, lines 5-11);

outputting said representations from the compression coding step (13 of fig. 1) and passing the representation along a video pathway with input video signal (22, 10, 31-35 of fig. 1)); and

downstream of the video pathway compression encoding the input video signal in accordance with said coding decisions (34 of fig. 5, e.g. encoding the video input based on the coding decisions).

Re claim 2, Ohsawa further discloses wherein said representation of the coding decision comprises an information bus (an (A) value of fig. 2) in which the coding decisions are represented in the same format as they are represented in the compressed bit-stream which is the output of said downstream compression coding operation (VLC 34 of fig. 1).

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Re claim 4, Ohaswa further discloses wherein analysis comprises the generation of candidate of a motion vector (38 of fig. 1).

Re claim 5, Ohsawa further discloses wherein analysis comprises the selection for each macro-block of the picture of a motion vector from said candidate motion vectors (col. 3, lines 57-62).

Re claim 7, Ohsawa further discloses wherein said analysis includes a bit rate control (35 and 16 of fig. 1), and includes the taking of quantizer decisions (16 of fig. 1) appropriate to the maintenance of the selected bit rate.

Re claim 8, Ohsawa further discloses wherein plural bit rates are selected (16 of fig.1) and plural quantizer decisions are taken (quantizer step size).

Re claims 9, 14-16, Ohsawa discloses compression pre-processing apparatus (11-13, 30, 31, and 38 of fig. 1) comprising: coding means (11-13 of fig. 1) for analyzing a video signal at a picture rate (10 of fig. 1) and at a macroblock rate (11-12 of fig. 1) and taking compression coding decisions (13 of fig. 1) including picture rate coding decisions and macroblock coding decisions means (13 of fig. 1) for processing the coding decisions and means (13 of fig. 1) for outputting, from the compression pre-processing apparatus, the processed coding decisions for passage with the video signal along a video pathway (the decisions from the output of the decision circuit 13 of fig. 1, and the video input signal from the input unit 22 of fig.1, wherein the encoder (34 of fig. 1) for encoding the video input with the decisions information).

Re claim 10, Ohsawa further discloses wherein said means for processing the coding decisions provides a representation of the coding decisions in the form of a compressed video bit-stream lacking transform coefficients (the decisions are used for encoding without using transform coefficients, 13 of fig. 1).

Re claims 11 and 17, Ohsawa further discloses wherein said means for outputting processed coding decisions serves to modulate one or more least significant bits of video signal (the decisions inherently have one or more least significant bits).

Re claims 13 and 18, Ohsawa further discloses wherein the input video signal which is passed along decisions comprises means for modifying the un-encoded input video signal by adding the processed coding decisions(13a of fig. 1)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 6, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsawa (US 5,790,195) in view of Kodama (US 5,963,673).

Re claims 3, 6 and 19, Note Ohsawa teaches the pre-processing apparatus comprises the analyzing method above but not analysis generates information relating the picture size and type and the selection of a macroblock prediction mode; wherein the input video signal which is

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passed along the video pathway with the presentation of the coding decisions undergoes no processing other than delay as claimed.

However, Kodama suggests analysis generates information relating the picture size and type (the MPEG standard comprises a group of picture (GOPs); the GOP consists of I, P, B frames that comprises horizontal and vertical sizes, see col. 1-2 and 5) and the selection of a macroblock prediction mode (60 of fig. 5, col. 5, lines 24-66).

Taking the teachings of Oshawa and Kodama as a whole, it would have been obvious to one skill in the art to incorporate the teachings of Kodama into the preprocessing apparatus of Oshawa for the same purpose of determining the type of the picture so that the encoder compress the determined signal more efficiency. Doing would provide an amount of total code input to the buffer memory is reduced.

Allowable Subject Matter

6. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al. (US 6,115,499) discloses a repeat field detection using checkerboard pattern.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung Vo
Primary Examiner
Art Unit 2613